

14237
April 17

Dart Aerospace Ltd.
1270 Aberdeen St
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Canada

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SAD
17/08/13

6F9540V00131

Job Sheet 198831



POSITIVE RECALL

Part No: 6F9540V00131

Job Qty: 1 pcs

EFFECTIVE 17/08/13 AUTH. S.H.J.

Part Name: AW169 Upper Cutter Deflector Assembly

RELEASED 9-89 DATE 20-03-31



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/6/19

Job Tracking No:

Concession Required

Due Date: 1/20/20

Type: SOLD

Created By: Marie Lajeunesse

Description:

Note: URF18-746 DWG REV C IPP REV:A 13.11.13 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Packaging 1 - Pick Kit	1 pcs		1/20/20	0.00	0.00	Packaging 1 - 1		DAS 69 9-89
							Packaging 1 - 2		
							Packaging 1 - 3		
							Packaging 1 - 4		
							Packaging 1 - 5		
							Packaging 1 - 6		
							Packaging 1 - 7		
							Packaging 1 - 8		
							Packaging 1 - 9		
							Packaging 1 - 10		
							Packaging 1 - 11		
							Packaging 1 - 12		
							Packaging 1 - 13		
							Packaging 1 - 14		
							Packaging 1 - 15		
							Packaging 1 - 16		
							Packaging 1 - 17		
							Packaging 1 - 18		
							Packaging 1 - 19		
							Packaging 1 - 20		
							Packaging 1 - 21		
							Packaging 1 - 22		
							Packaging 1 - 23		
							Packaging 1 - 24		
							Packaging 1 - 25		
							Packaging 1 - 26		
							Packaging 1 - 27		
							Packaging 1 - 28		
							Packaging 1 - 29		
							Packaging 1 - 30		
							Packaging 1 - 31		

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Container No: S253996

Part: 6F9540V00131

Job No: 198831

Serial No/Batch: S253996

Revision:

Inspector:

Exp Date:

Instructions:

Date: 02/07/20

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111	Packaging 1-1 - Pick Kit - B4B 1 pcs	1/20/20	0.00 0.00	Packaging 1 - 32	
				Packaging 1 - 33	
				Packaging 1 - 34	
				Packaging 1 - 35	
				Packaging 1 - 36	
				Packaging 1 - 1 - B4B	DAS 72 9-89
				Packaging 1 - 2 - B4B	
				Packaging 1 - 3 - B4B	
				Packaging 1 - 4 - B4B	
				Packaging 1 - 5 - B4B	
				Packaging 1 - 6 - B4B	
				Packaging 1 - 7 - B4B	
				Packaging 1 - 8 - B4B	
				Packaging 1 - 9 - B4B	
				Packaging 1 - 10 - B4B	
				Packaging 1 - 11 - B4B	
				Packaging 1 - 12 - B4B	
				Packaging 1 - 13 - B4B	
				Packaging 1 - 14 - B4B	
				Packaging 1 - 15 - B4B	
				Packaging 1 - 16 - B4B	
				Packaging 1 - 17 - B4B	
				Packaging 1 - 18 - B4B	
				Packaging 1 - 19 - B4B	
				Packaging 1 - 20 - B4B	
				Packaging 1 - 21 - B4B	
				Packaging 1 - 22 - B4B	
				Packaging 1 - 23 - B4B	
				Packaging 1 - 24 - B4B	
				Packaging 1 - 25 - B4B	
				Packaging 1 - 26 - B4B	
				Packaging 1 - 27 - B4B	
				Packaging 1 - 28 - B4B	
				Packaging 1 - 29 - B4B	
				Packaging 1 - 30 - B4B	
				Packaging 1 - 31 - B4B	
				Packaging 1 - 32 - B4B	
				Packaging 1 - 33 - B4B	
				Packaging 1 - 34 - B4B	
				Packaging 1 - 35 - B4B	
				Packaging 1 - 36 - B4B	
120	QC 4	1/20/20	0.00 0.00	QC 4 - 28	
				QC 4 - 58	
				QC 4 - 69	
				QC 4 - 9	
				QC 4 - 46	
				QC 4 - 68	DAS 72 9-89
				QC 4 - 72	
				QC 4 - 74	
				QC 4 - 75	
130	Packaging 3-1 - Stock - B4B 1 pcs	1/20/20	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	DAS 72 9-89
				Packaging 3 - 9 - B4B	

				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
135	DC - 1 - B4B	1 pcs	1/20/20	0.00 0.00	DC - 1 - B4B
					DC - 2 - B4B
140	QC 21 - FG	1 pcs	1/20/20	0.00 0.00	QC 21 - FG - 21
					QC 21 - FG - 70
					QC 21 - SA - 53

Part Op 110 - (Pick Kit)

Descriptions: 120 - (QC4- 100% Inspect kits for completeness)

130 - (Identify as per dwg & Stock Location: _____) Identify and pack for shipping as per PPP 6F9540V00131

135 - (Document Control) Photocopy bluefile per PPP D169-841-013 chg002 and create labels per 6F9540V00131 CHG002

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D169-841-013	AW169 Upper Cutter Deflector	1 pcs (1 ea)	110-Packaging 1 - Pick Kit	5202319

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Packaging 1 - Pick Kit	D169-841-013	1	1	0

Part Specifications

Specifications could not be found.

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		Concessione Fornitore				PAGINA 1 di 2	STAB. EMITTENTE Vergiate	
NC Fornitore N.	AWC-041	Data	02.04.2020	Concessione	400000090702	Ordine	4801939434	
P/N	6F9540V00131			Grado/Categoria	NC	Rev. disegno		
Descrizione Parte	PROTECTOR, CCP ASSY UPPER			Quantità Lotto	2,000	Q.tà sotto conc.	2,000	
Coordinatore NC	GIORGIO BENZONI					A/C Model	AW6	
Fornitore	DART AEROSPACE LTD					Contratto		
Difetto MA01 - Materiale diverso dal richiesto - * 02.04.2020 17:23:27 GIORGIO BENZONI (39851) * See supplier concession AWC-041 attached Causa del Difetto								
					Ripetitività (stesso P/N-Cod.Difetto)	NO ☐	SI ☒	(12)
Valutazioni e proposte dell'ENGINEERING								
Valutazioni dell'Engineering compresi input dell'Esperto:				Rapp. Indagine n.	Rapp. Rispondenza n.			
* 07.04.2020 15:24:17 GENNARO MARGIOTTA (5907) * Ref. PP400000090350 * Deviation Allowed * Considering the assessment and assumptions made by the supplier <i>Segue in 2° pag.</i> Classificazione Deviazione dal Type Design secondo EASA part 21A.91: Minore/B								
Effetti del difetto						Limitazioni		
	Prima eventuale riparazione		Dopo eventuale riparazione		☐ Si (specificare) ☒ NO			
Sicurezza	☐ SI	☐ SI	☐ SI	☐ NO				
Vita o durata	☐ SI	☐ SI	☐ SI	☐ NO				
Resistenza	☐ SI	☐ SI	☐ SI	☐ NO				
Prestazioni	☐ SI	☐ SI	☐ SI	☐ NO				
Intercambiabilità	☐ SI	☐ SI	☐ SI	☐ NO				
Affidabilità	☐ SI	☐ SI	☐ SI	☐ NO				
Manutenibilità	☐ SI	☐ SI	☐ SI	☐ NO				
Installabilità	☐ SI	☐ SI	☐ SI	☐ NO				
Testabilità	☐ SI	☐ SI	☐ SI	☐ NO				
Solo aspetto	☐ SI	☐ SI	☐ SI	☐ NO				
Nessun effetto	☒ SI							
Proposte di recupero:					Decisione di Impiego ☐ Usare riparato con riparazione specifica ☐ Usare riparato con riparazione nota ☒ Usare com'è ☐ Usare riparato per prove (vedi Limitaz.) ☐ Usare com'è per prove (vedi Limitazioni) ☐ Scartare			
Classificazione Concessione ☐ MAGGIORE ☒ MINORE					Ripresentare dopo riparazione ☐ SI ☒ NO			
Marcatura ☐ NO ☒ SI Metodo : Indelible ink pen								
ATE	GENNARO MARGIOTTA		CPE			Data	07.04.2020	
Verifiche e prove da effettuare								
Registraz. della riparazione Con Ordine (WO) di riparazione ☐ Numero:								
Valutazione Riparazione:								
Decisioni finali								
S/N	Usare com'è (UTI)	Usare riparato (RIL)	Scartare (SCA)	S/N	Usare com'è (UTI)	Usare riparato (RIL)	Scartare (SCA)	
S253238	☒	☐	☐		☐	☐	☐	
S253388	☒	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
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	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
	☐	☐	☐		☐	☐	☐	
Non Serializzati	Q.tà Usare com'è	2,000	Q.tà Usare riparato		Q.tà Scartare			
Funzione	ATE AW	CPE AW	Verifica della Riparazione	Qualità	Cliente	MOD/Rappresent. Istituzionale		
Firma	GENNARO MARGIOTTA			GIORGIO BENZONI				
Data	07.04.2020			14.04.2020				

NC Fornitore N. AWC-041

Data 02.04.2020

Concessione 400000090702

Ordine

4801939434

CAUSE DEL DIFETTO

- * C8C5 Metodo e Processi

VALUTAZIONI DELL'ENGINEERING

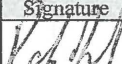
engineering the deviation is accepted.

- * Mark the part with concession number in order to keep trace of the deviation.
- * The deviation must be mentioned by Dart during the process of the validation for change design.

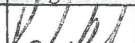
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Supplier NC Number	AWC-041	Date	March 31, 2020	LH NC Number	400000090702	Purchase Order	4801939434
LH PN	6F9540V00131	S/N / Batch N.	S253238 S253996	Grade/ Criticality	NC	LH DWG issue	B
P/N Description	Protector, CCP Assembly Upper			Batch Qty	2	Defective Qty	2
Supplier Name	Dart Aerospace LTD					Model	AW169

Defect(s)	Description
1.	Gasket material for D4857-041 found on the D169-841-013 (LH PN 6F9540V00131) upper cutter deflector kit has been discontinued by the manufacturer.
2.	D4857-041 (2x) and D4944-1 (4x), P/N 6F9540V00131, to be supplied without the 4x 5.33mm holes drilled per drawing. The operation of drilling is to be performed by a Leonardo operator as per attached production permit.
3.	The material of the D4823-1 upper cutter deflector and D4824-1 upper cutter mount was deviated from the approved data. The parts were manufactured using aluminum plate per AMS-QQ-A-250/12 instead of aluminum bar. The substantiation for the deviation provided in the attached engineering evaluation.
4.	The grain direction on the D4823-1 upper cutter deflector and D4824-1 upper cutter mount deflector was deviated from the approved Data. The substantiation for the deviation is provided in the attached engineering evaluation.

Department	Inspector	Signature	Date
Quality Assurance	9		March 31, 2020

Defect(s)	Cause
	1. Discontinued 8623K358 / 8623K338 gasket material. 2. Due to issue regarding QJ 200001282441 Dart Aerospace Drawing requirements and requirements specified in Leonardo's 3D model parts are to be supplied to Leonardo without the Ø5.33mm / Ø.210" holes drilled per drawing D4857. Previous parts provided the hole pattern do not match the A/C structure. 3. To facilitate manufacture, Dart would like to modify the material on the approved drawing to manufacture the parts using aluminum plate per AMS-QQ-A-250/12. 4. To minimize material waste, Dart would like to modify the grain direction on the approved drawing.

Department	Inspector	Signature	Date
Quality Assurance	9		March 31, 2020

Corrective Action	
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	June 2018	

Dart requests Leonardo Helicopters to accept the modified parts as described in this Concession. Dart is in the process of updating the drawings for approval by Leonardo Helicopters for future production.

Department	Inspector	Signature	Date	Foreseen implementation date
Quality Assurance	9	<i>[Signature]</i>	March 31, 2020	

For Suppliers approved as “MANUFACTURER” only
Supplier ENGINEERING evaluation and proposal

Investigation Report n: NCR17-6591

Compliance Report n.
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1. Part number DSP1135M will replace the existing material. DSP1135M meets ASTM D1056, AMS3195, Mil-R-46089, Mil-R-6130, and Mil Std 670 TE12 Specifications. The material callouts on D5117 drawings have been updated to reflect this. No other change to design or certification data is required. This change is classified by Dart Aerospace as a minor change
2. No design changes. Removing the holes from the D4857-041 Deflectors and having them drilled during installation will prevent mismatched holes during installation.
3. In reference to Structural Substantiation Report DA169-4 page 48, the cable cutter system (CCS) was analysed using 7075-T6 aluminum sheet AMS-QQ-A-250/12. Therefore, manufacture of CCS pans using AMS-QQ-A-250/12 material has no effect on the structural substantiation.
4. Per DA169-4, the minimum margin of safety for the D4823-1 Upper Cutter Deflector and D4824-1 Upper Cutter Mount is 0.15 (page 66, 15 degree cutting strike on mount) which corresponds with a maximum stress of 61.9 ksi.
5. In reference to MMPDS-07 Tables 3.7.9.0 (b2) & (b3), the minimum yield strength of AMS-QQ-A-250/12 plate between 0.250"-2.000" thick in either the L or LT grain direction is 64 ksi (7075-T62 in longitudinal grain direction).

Repeating the margin of safety calculation in DA169-4 for 64 ksi material strength:

MS = (Yield Strength / Maximum Load) -1

= (64 ksi / 61.9 ksi) -1

= 0.03

The margin of safety is positive. Therefore, the grain direction can be rotated in the L – LT plane with no effect on the strength substantiation of the D4823

Defect Effects			Limitations after repair
	Before any repair	After any repair	
Safety	☐ yes	☐ yes ☐ no	☐ yes (specify) ☐ no
Life	☐ yes	☐ yes ☐ no	
Strength	☐ yes	☐ yes ☐ no	
Performance	☐ yes	☐ yes ☐ no	
Interchangeability	☐ yes	☐ yes ☐ no	
Reliability	☐ yes	☐ yes ☐ no	
Maintainability	☐ yes	☐ yes ☐ no	
Installability	☐ yes	☐ yes ☐ no	
Only Aspect	☐ yes	☐ yes ☐ no	
Repair Proposal			